

ABSTRACT

DRUG UTILIZATION STUDY OF ANTIDIABETICS IN GERIATRIC PATIENT WITH TYPE 2 DIABETES MELLITUS (Study At Internal Medicine Outpatient Universitas Airlangga Hospital Surabaya)

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Background : Type 2 diabetes mellitus is one of the most common chronic conditions in elderly population. Managing type 2 diabetes in elderly need is challenging because of physiological changes in aging that affect drug pharmacokinetics and increase risk of hypoglycemia.

Objectives : The purposes of this study were examined utilization of antidiabetic drug in elderly with type 2 diabetes and to identify drug relates problems (adverse drug reaction and potential interaction drug).

Methods : Data collected crosssectionally with consecutive sampling method in the period of March to May 2018 at Internal Medicine Outpatient Unit Universitas Airlangga Hospital Surabaya.

Results : The results of this study on 150 patients showed the antidiabetic drug use were sulfonylurea (glimepiride 44.67%, gliquidon 17.33%, gliclazid 5.33% and glibenclamid 0.67%), followed by metformin 52%, acarbose 45.33%, long acting insulin (glargine 15.33% and detemir 8%), rapid acting insulin (aspart 10%, glulisine 4.67%), and premixed insulin (70/30 protamine aspart/aspart 12.67% and 75/25 protamine lispro/lispro 1.33%). Dose of antidiabetic drug in geriatric patient with type 2 diabetes mellitus are very diverse and based on individual patient's condition. In this study, only 16% patients achieved blood glycemic target. Drug related problems identified were presumption of adverse drug reaction 12% and potential drug interaction 11.33%.

Conclusions : The use of antidiabetic in this study is quite accordance with the recommendation of several guidelines. Most patients had not reached the glycemic target and several drug related problems were found in this study.

Keywords : elderly, type 2 diabetes, antidiabetic drug, drug utilization study